

## Chronic Disease Indicators: Indicator Definition



### Hospitalization for hip fracture among Medicare-eligible persons aged $\geq 65$ years

Category:	Other Diseases and Risk Factors
Demographic Group:	Medicare-eligible resident persons aged $\geq 65$ years.
Numerator:	Hospitalizations (not unduplicated*) with an International Classification of Diseases (ICD)-9-CM code 820 (search all diagnostic fields) among Medicare-eligible persons aged $\geq 65$ years among residents during a calendar year.
Denominator:	Residents aged $\geq 65$ years who were eligible for Medicare Part A benefits on July 1 of the calendar year, excluding members of health maintenance organizations.
Measures of Frequency:	Annual number of hospitalizations. Annual hospitalization rate — crude and age-adjusted (standardized by the direct method to the year 2000 standard U.S. population, distribution 1†) — with 95% confidence interval.
Time Period of Case Definition:	Calendar year.
Background:	Approximately 300,000 hip fractures occur each year in the United States. In 2003, the hip fracture rate for women was 85% higher than for men. Approximately 10 million U.S. residents have osteoporosis.
Significance :	Hip fracture is the most serious consequence of osteoporosis. The risk of osteoporosis and its complications might be reduced through physical activity, proper nutrition (i.e., adequate calcium and vitamin D intake through food or supplementation), and pharmacologic therapy.
Limitations of Indicator:	Hip fracture is a proxy measure for osteoporosis. Although 80%–90% of hip fractures are associated with osteoporosis, all hip fractures are not related to osteoporosis. Because osteoporosis is a chronic disease, years might pass before changes in patient behavior or clinical practice affect hospitalization for hip fracture. Indicator excludes younger persons who are at risk for osteoporosis (e.g., as a result of steroid treatment or early menopause). About 15% of persons aged $\geq 65$ years do not participate in Medicare Part A; this limits comparability with data from other sources such as the National Hospital Discharge Survey.
Data Resources:	Centers for Medicare and Medicaid Services (CMS) Part A claims data (numerator) and CMS estimates of the population of persons eligible for Medicare (denominator).
Limitations of Data Resources:	Diagnoses listed on hospital discharge data might be inaccurate. Practice patterns and payment mechanisms might affect decisions by health-care providers to hospitalize patients. Indicator is limited to Medicare-eligible population.
Healthy People 2010 Objectives:	15-28: Reduce hip fractures among older adults. (15-28a is specific for females aged $\geq 65$ years; 15-28b is specific for males aged $\geq 65$ years.)

\* The term not unduplicated refers to the fact that one person might account for multiple admissions. † See Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. Hyattsville, MD: US Department of Health and Human Services, CDC, National Center for Health Statistics, 2001. Healthy people 2010 statistical notes, no. 20 <http://www.cdc.gov/nchs/data/statnt/statnt20.pdf>